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TITLE:

**POLYIMIDE** FILM AND ITS PREPARATION

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## ABSTRACT:

PROBLEM TO BE SOLVED: To obtain a polyimide film having a high modulus and a specified storage modulus by preparing the same from a polyamic acid prepared by reacting p-phenylenebis(trimellitic monoester anhydride) and oxydiphthalic dianhydride with p-phenylenediamine and 4,4'-diaminodiphenyl ether.

SOLUTION: An acid dianhydride component comprising 1-90 mol% pphenylenebis(trimellitic monoester anhydride) and 10-99 mol% oxydiphthalic dianhydride is reacted with a diamine component comprising 25-90 mol% pphenylenediamine and 10-75 mol% 4,4'-diaminodiphenyl ether to give a polyamic acid, which is mixed with a dehydrating agent and a tert, amine, formed into a film, dried and thermally imidized at 100-500. The resultant polyimide film has a storage modulus (at 300-400°C) of 200 MPa or higher, an average linear thermal expansion coefficient (at 100-200°C) of 15-30 ppm, a tensile modulus of 4.5-8.5 GPa and an elongation at break of 20% or higher.

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